

PATENT ABSTRACTS OF JAPAN

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H01Q 1/24

H01Q 21/29

(21)Application number : 2000-112436

(71)Applicant : NIPPON SOKEN INC
DENSO CORP

(22)Date of filing : 13.04.2000

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(30)Priority

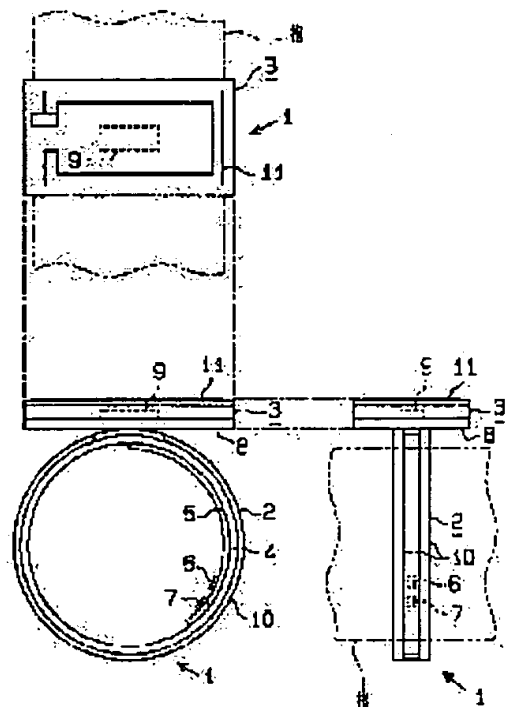
Priority number : 11150447 Priority date : 28.05.1999 Priority country : JP

(54) ANTENNA FOR PORTABLE RADIO EQUIPMENT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an antenna for portable radio equipment, capable of further improving performance.

SOLUTION: The portable radio equipment 1 is provided with a ring shape composed of a ring part 2 and a pedestal part 3, the ring part 2 is provided with a slot antenna 10 and the pedestal part 3 is provided with a pattern antenna 11 as another antenna element. Relating to the pattern antenna 1, a conductor is formed on the entire back surface of an insulation substrate, and an antenna pattern in a belt shape is extended on the front surface of the insulation substrate. In the slot antenna 10, copper foil is formed through an adhesive layer on a flexible substrate forming the belt shape and a slot (groove) is formed at the copper foil. The output of a transmission circuit 9 is connected in parallel with the pattern antenna 11 and the slot antenna 10.



LEGAL STATUS

[Date of request for examination]

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[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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, antenna efficiency is improved.

DESCRIPTION OF DRAWING(S) - The figure shows schematic view of the antenna in portable communication device.

Battery (1)

Shielding plate (4)

Human body (6)

pp; 10 DwgNo 2/12

Title Terms: ANTENNA ; PORTABLE; COMMUNICATE; DEVICE; CASING; COMPRISE; SHIELD; PLATE; CAPACITANCE; COUPLE; HUMAN; BODY

Derwent Class: W01; W02

International Patent Class (Main): H01Q-001/12; H01Q-001/24; H01Q-001/27

International Patent Class (Additional): H01Q-001/48; H01Q-007/00;

H01Q-009/28; H04B-001/034; H04B-001/38

File Segment: EPI

2/5/8 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013778816 **Image available**

WPI Acc No: 2001-263027/200127

XRPX Acc No: N01-188381

Antenna for portable radio , has slots of length relevant to communication frequency, which are distributed continuously

Patent Assignee: NIPPON JIDOSHA BUHIN SOGO (NIJI); NIPPONDENSO CO LTD (NPDE); DENSO CORP (NPDE)

Inventor: HASEGAWA M; MAEDA N ; OHOKA S

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001053521	A	20010223	JP 2000112436	A	20000413	200127 B
US 6281854	B1	20010828	US 2000579507	A	20000526	200151

Priority Applications (No Type Date): JP 99150447 A 19990528

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001053521	A	13	H01Q-001/24	
US 6281854	B1		H01Q-001/12	

Abstract (Basic): JP 2001053521 A

NOVELTY - Several slots are distributed continuously on the antenna substrate. The length of slot is set relevant to the communication frequency.

USE - For portable radio e.g. wristwatch mounted type radio .

ADVANTAGE - Performance of antenna is enhanced, thereby facilitates usage in wireless communication.

DESCRIPTION OF DRAWING(S) - The figure shows the portable radio using antenna .

pp; 13 DwgNo 1/19

Title Terms: ANTENNA ; PORTABLE; RADIO ; SLOT; LENGTH; RELEVANT; COMMUNICATE; FREQUENCY; DISTRIBUTE; CONTINUOUS

Derwent Class: W02

International Patent Class (Main): H01Q-001/12; H01Q-001/24

International Patent Class (Additional): H01Q-021/29

File Segment: EPI

?

portable **radio** equipment.

SOLUTION: In the **antenna** for portable **radio** equipment to be used, while being mounted or held on a human body, an **antenna** element is configured by locating a shielding plate 4 inside a casing, which is tightly adhered on the human body, and electrostatically coupled in with the human body. Furthermore, the cover of a battery 1 provided inside the casing is used as an **antenna** element, and an electric field type dipole **antenna** is formed from these elements. Since the shielding plate 4 is electrostatically coupled via the casing to the human body, human body can be utilized as a part of **antenna** elements and **antenna** efficiency can be improved.

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2/5/3 (Item 3 from file: 347)

DIALOG(R)File 347:JAPIO

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06826027 **Image available**

ANTENNA FOR PORTABLE **RADIO** EQUIPMENT

PUB. NO.: 2001-053521 [JP 2001053521 A]

PUBLISHED: February 23, 2001 (20010223)

INVENTOR(s): OOKA SHINJI

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APPL. NO.: 2000-112436 [JP 2000112436]

FILED: April 13, 2000 (20000413)

PRIORITY: 11-150447 [JP 99150447], JP (Japan), May 28, 1999 (19990528)

INTL CLASS: H01Q-001/24; H01Q-021/29

ABSTRACT

PROBLEM TO BE SOLVED: To provide an **antenna** for portable **radio** equipment, capable of further improving performance.

SOLUTION: The portable **radio** equipment 1 is provided with a ring shape composed of a ring part 2 and a pedestal part 3, the ring part 2 is provided with a slot **antenna** 10 and the pedestal part 3 is provided with a pattern **antenna** 11 as another **antenna** element. Relating to the pattern **antenna** 1, a conductor is formed on the entire back surface of an insulation substrate, and an **antenna** pattern in a belt shape is extended on the front surface of the insulation substrate. In the slot **antenna** 10, copper foil is formed through an adhesive layer on a flexible substrate forming the belt shape and a slot (groove) is formed at the copper foil. The output of a transmission circuit 9 is connected in parallel with the pattern **antenna** 11 and the slot **antenna** 10.

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2/5/4 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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2/5/5 (Item 2 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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01573962

RADIO TRANSMISSION SYSTEM AND METHOD AND TRANSMISSION STATION APPARATUS
AND RECEPTION STATION APPARATUS USED IN THE RADIO TRANSMISSION SYSTEM
FUNKUBERTRAGUNGSSYSTEM UND VERFAHREN UND IN DEM FUNKUBERTRAGUNGSSYSTEM
VERWENDETE SENDESTATIONSVORRICHTUNG UND EMPFANGSSTATIONSVORRICHTUNG
SYSTEME ET PROCEDE D'EMISSION RADIO , APPAREIL DE STATION D'EMISSION ET
APPAREIL DE STATION DE RECEPTION, UTILISES DANS LEDIT SYSTEME
D'EMISSION RADIO

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1422853 A1 040526 (Basic)

WO 2003019837 030306

APPLICATION (CC, No, Date): EP 2002765395 020830; WO 2002JP8842 020830

PRIORITY (CC, No, Date): JP 2001262215 010830

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
IE; IT; LI; LU; MC; NL; PT; SE; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04J-011/00; H04J-013/04

ABSTRACT EP 1422853 A1

A **radio** transmission system is configured to, on the occasion of
radio transmission of information between a transmitter and a receiver,
perform the **radio** transmission of information using an orthogonal
frequency and code division multiplexing transmission scheme of
parallelly transmitting identical information by a plurality of
sub-carriers. The **radio** transmission system has a spreading factor
variable control transmitting device for parallelly converting
information channel-coded at the transmitter, according to symbols
transmitted simultaneously, and for spreading a sequence of parallelized
symbols in at least one of a frequency direction and a time direction by
a spreading code sequence of a designated spreading factor.

ABSTRACT WORD COUNT: 103

NOTE:

Figure number on first page: 9

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030502 A1 International application. (Art. 158(1))

Application: 030502 A1 International application entering European
phase

Application: 040526 A1 Published application with search report

Examination: 040526 A1 Date of request for examination: 20040227

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200422	1536
SPEC A	(English)	200422	8821
Total word count - document A			10357
Total word count - document B			0
Total word count - documents A + B			10357

2/5/6 (Item 3 from file: 348)
 DIALOG(R) File 348:EUROPEAN PATENTS
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00996542

Message processing system and method for processing messages
Nachrichtenverarbeitungssystem und Verfahren für die Verarbeitung von
Nachrichten
Systeme de traitement de messages et methode pour le traitement de messages
 PATENT ASSIGNEE:

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LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 901000 A2 990310 (Basic)
 EP 901000 A3 000628

APPLICATION (CC, No, Date): EP 98114357 980730;

PRIORITY (CC, No, Date): JP 97205615 970731; JP 97277775 971009

DESIGNATED STATES: DE; FR; GB; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G01C-021/20; H04L-012/58; G06F-017/60;
 G10L-007/00

ABSTRACT EP 901000 A2

A message processing device is adapted to obtain text data and read aloud the text data aloud by using a voice synthesizer. A loudspeaker device (16) is connected to the message processing device to output or read aloud the text data. The text data can be received through a receiving device (11) that receives outside information data or e-mail message data. The voice synthesizer (17) can be controlled by an outside information controller (13), with the outside information controller being able to distinguish senders of the text data and being able to select one voice tone data to read aloud messages sent by one sender. If the controller (13) recognizes that there are other messages sent by another sender, the controller (13) allots different voice tone data for the other sender's messages. The message processing device (33) can include a voice navigation device (34) to generate voice signals for giving route guidance messages or information to a driver of a vehicle. The voice tone used for the route guidance message is preferably different from the voice tone used to read aloud the outside information message. It is thus possible for the driver to recognize the source or senders of different messages being read aloud. It is also possible to

adjust the output timing of the route guidance message and the outside information message.

ABSTRACT WORD COUNT: 224

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Change: 000628 A2 International Patent Classification changed:
20000511

Application: 990310 A2 Published application (A1with Search Report
;A2without Search Report)

Search Report: 000628 A3 Separate publication of the search report

Examination: 990310 A2 Date of filing of request for examination:
980819

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9910	1419
SPEC A	(English)	9910	8167
Total word count - document A			9586
Total word count - document B			0
Total word count - documents A + B			9586

2/5/7 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014530307 **Image available**

WPI Acc No: 2002-351010/200238

XRPX Acc No: N02-275812

Antenna for portable communication device, has casing comprising shield plate that is capacitively coupled to human body

Patent Assignee: NIPPON JIDOSHA BUHIN SOGO (NIJI); NIPPONDENSO CO LTD (NPDE); INOUE G (INOUE-I); MAEDA N (MAED-I); OHOKA S (OHOK-I); DENSO CORP (NPDE); NIPPON SOKEN INC (NSOK)

Inventor: INOUE G; MAEDA N ; OHOKA S

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020030630	A1	20020314	US 2001946562	A	20010906	200238 B
JP 2002158519	A	20020531	JP 2001272674	A	20010907	200239
US 6597320	B2	20030722	US 2001946562	A	20010906	200354

Priority Applications (No Type Date): JP 2000275402 A 20000911

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020030630	A1	10	H01Q-001/24	
JP 2002158519	A	8	H01Q-001/27	
US 6597320	B2		H01Q-001/12	

Abstract (Basic): US 20020030630 A1

NOVELTY - A battery (1) and a shielding plate (4) are accommodated in a casing to form the electric field dipole antenna . The shield plate is capacitively coupled with a human body (6) so that the human body forms an element of the antenna .

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for method of transmitting radio signal.

USE - For portable radio communication device.

ADVANTAGE - Since human body is used as an element of the antenna